

## In the Specifications:

**Please amend the following paragraphs as shown:**

[0016] In a US patent application No. 10/743,986, filed on December 22, 2003 US patent 7,007,546 to Andle titled "Measurement, Compensation and Control of Equivalent Shear Rate in Acoustic Wave Sensors" (which is incorporated herein by reference in its entirety), the inventor of the present application disclosed a method for measuring viscosity and shear rate at which the measurement is performed by utilizing an acoustic wave sensor, and calculating the shear rate as a function of the characteristic rate of fluid movement in response to a given power transmitted to a fluid, and the viscosity of the fluid. The acoustic wave device has a characteristic relationship between input power, output power, and an acoustic wave amplitude at a selected region between the input and output transducer. The acoustic wave device is coupled to the measured fluid. A predetermined power level  $P_{in}$  of a harmonic signal is applied to an input transducer, to impart an acoustic wave at the selected region. Output power level  $P_{out}$  is measured at the output transducer. Using the characteristic relationship, and the input and output power levels, the amplitude of the average acoustic wave imparted to the fluid is calculated. Measuring the viscosity of the fluid to obtain a measured viscosity at the selected region, allows calculating of the shear rate of the fluid at the selected region, by using the frequency, the viscosity measurement, and the acoustic wave amplitude. This invention may be beneficially used with the present invention as explained below.

[0065] Two amplifiers, a first having zero phase, 730, and a second having 180 degrees of phase shift of an electrical signal amplified therein, 740, are coupled between the input 735 and output 745 transducers. The amplifiers are connected through suitable switching circuits ~~(not shown)~~ 750. At  $F_s$ , the LPAWD coupled resonator filter provides a transmission phase of typically  $180^\circ$  while at anti-symmetric frequency  $F_A$  it provides typically  $0^\circ$  transmission phase shift. Amplifier 740 will oscillate on  $F_s$  and amplifier 730 will oscillate on  $F_A$ . Supporting coupling/decoupling, gain setting, and other common components needed for the operation of the amplifiers as oscillators are well known and not discussed herein. While frequency

counters, 760 and 765, are proposed, alternate means including frequency to voltage converters or the use of mixers to obtain difference frequencies and sum frequencies are equally applicable and contemplated herein, but as those are well known techniques, are not detailed or shown.